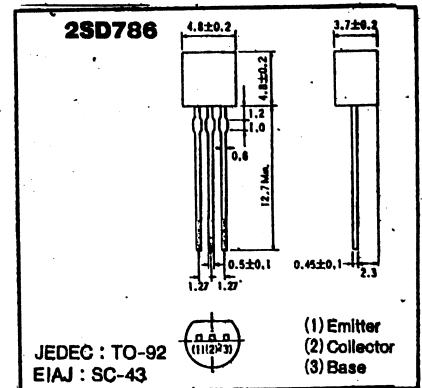


2SD786

Epitaxial Planar NPN Silicon Transistor Low r_{bb}' Low Noise Amp.

Epitaxial Planar NPN Silicon Transistor

Dimensions (Unit : mm)



● Features

- 1) Ultra-low noise. (Good noise response at low R_g): $NF=2.5dB$ (Typ.) (at $f=10Hz$, $R_g=10\Omega$, $V_{CE}=8V$, $I_C=3mA$)
- 2) Low base resistance: $r_{bb}'=4\Omega$,
Low voltage noise: $e_n=0.55nV\sqrt{Hz}$ (at 10Hz, 10mA)
- 3) Complementary pair with 2SB737.

Absolute Maximum Ratings ($T_a=25^\circ C$)

Symbol	Limits	Unit
V_{CBO}	50	V
V_{CEO}	40	V
V_{EBO}	5	V
I_C	300	mA
P_C	250	mW
T_J	125	$^\circ C$
T_{stg}	-55~125	$^\circ C$

Electrical Characteristics ($T_a=25^\circ C$)

Symbol	Min.	Typ.	Max.	Unit	Conditions
BV_{CEO}	40	—	—	V	$I_C=1mA$
BV_{CBO}	50	—	—	V	$I_C=50\mu A$
BV_{EBO}	5	—	—	V	$I_E=50\mu A$
I_{CBO}	—	—	0.5	μA	$V_{CB}=30V$
I_{EBO}	—	—	0.5	μA	$V_{EB}=4V$
h_{FE}	120	—	560	—	$V_{CE}/I_C=6V/10mA$
$V_{CE(sat)}$	—	0.03	0.5	V	$I_C/I_B=50mA/5mA$
f_T	—	100	—	MHz	$V_{CE}=6V, I_E=-10mA$
r_{bb}'	—	4	6	Ω	$V_{CE}=6V, I_C=1mA, f=1MHz$
NV_1	—	—	150	mV	FLAT AMP ($G_v=80dB$) $V_{CE}=10V, I_C=1mA$ $R_g=100k\Omega$

h_{FE}

Item	Q	R	S
h_{FE}	120~270	180~390	270~560

